the cost of treatment with Peg-Interferon Alpha-2a is lower compared to Peg-Interferon Alpha 2b. For a 10-year projection which simulates through a Markov model that patients that did not respond to treatment evolved to chronicity of the disease costs per patient with Peg-interferon Alpha-2a was $ 25,913, while with Peg-Interferon Alpha-2b was $ 37,352, generating savings of $ 11,439 per patient who was treated with Peg-interferon Alpha-2a. **CONCLUSIONS:** The use of Peg-Interferon Alpha-2a was the dominant alternative because it was the most effective and least costly to treat HCV.

PGI12

THE IMPACT OF TNF INHIBITORS FOR CROHN'S DISEASE ON HEALTH CARE RESOURCE UTILIZATION: AN ANALYSIS USING THE RAMQ DATABASE

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OBJECTIVES: TNF antagonists are effective therapy for moderate to severe active Crohn's disease (CD). Despite their efficacy, these monoclonal antibodies are associated with high treatment costs. The objective was to evaluate the economic impact of the introduction of anti-TNFs for CD treatment on health care resource utilization from a health care system perspective. **METHODS:** A retrospective study was conducted using a random sample of patients diagnosed with CD (ICD-9=555.x) who initiated adalimumab or infliximab therapy between January 2001 and December 2009. Prescription and medical data from the Régie de l'assurance-maladie du Québec were also obtained from three samples of age- and gender-matched controls: 1) general population; 2) CD patients treated neither with anti-TNFs nor antimetabolites; and 3) CD patients taking only antimetabolites. Health care resource utilization and costs were estimated for the year preceding and following index date. Disease severity was assessed through prednisone and antimetabolite use and healthcare resource utilization in the year before index date. **RESULTS:** A cohort of 614 patients was obtained (mean age=40.5years, 61% females). Anti-TNF treated patients' average cost for health care resources was CAN$7,202. In comparison, costs in the general population, patients treated neither with anti-TNFs nor antimetabolites, and patients taking only antimetabolites, were CAN$1,093, CAN$2,029, and CAN$3,024 respectively. In the year before anti-TNF initiation, CD patients received more prednisone and antimetabolites and used more health care resources. Following anti-TNF initiation, the cost of drugs received was higher for this cohort, but costs of medical visits, ER visits and hospitalizations were significantly lower (CAN$882 vs. CAN$554, CAN$297 vs. CAN$161, and CAN$5,423 vs. CAN$2,963, respectively, p<0.001 for all). **CONCLUSIONS:** Biologic users are more likely to have severe CD than controls resulting in higher medical resource consumption and greater prednisone and antimetabolites use. Initiation of a biologic treatment in these patients is associated with lower health care resource utilization and cost offsets.

PGI13

ECONOMIC EVALUATION OF TWO SCHEMES OF MESALAZINE (MZ) MAINTENANCE THERAPY FOR ULCERATIVE COLITIS IN REMISSION: THE BRAZILIAN PUBLIC HEALTH CARE PERSPECTIVE

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OBJECTIVES: Several studies show that adherence is an important factor to treatment success, improving patient outcomes and reducing global costs. The aim of this study is to estimate the clinical and economic impact of non-adherence by patients with ulcerative colitis in remission that are under maintenance treatment with mesalazine in the Brazilian Public Healthcare perspective. **METHODS:** We compared two schemes of Mesalazine 2 grams/per day: once daily (2 grams sachet) or twice daily (two 500 mg capsules q12). We constructed a decision tree analytical model to compare costs and outcomes of Mesalazine once daily (MOD) with Mesalazine twice daily (MTD) over 12 months. Treatment pathways described in the model are based on Brazilian Government Clinic and Therapeutics Guidelines, therefore, biological drugs were not considered in this analysis, because there are not reimbursed. In both arms, the failure to maintain remission led to other treatments, as needed: prednisone, cyclosporin, azatioprine and colectomy. Adherence data was obtained from real life prospective studies (Kane et. al.). Costs considered were: drug, laboratory and diagnostic tests' costs, specialist consultation and hospitalization costs (all costs are referred to year 2011). The mains outcomes considered were colectomy surgery avoided and rates of remission without relapse. **RESULTS:** Results of the analysis suggest that the average aggregated treatment cost per person for all medical interventions at 12 months was lower for MOD compared with MTD (USD 1924 versus USD 1957). Additionally, there is a trend towards improved effectiveness with MOD in maintenance remission of ulcerative colitis with 6.6% re-inductions and 17.2% colectomy surgeries avoided. **CONCLUSIONS:** Results from base-case and sensitivity analysis indicate that MOD presents lower costs and better effectiveness than MTD from a public payers' perspective in Brazil.

PGI14

RESOURCE UTILIZATION IN THROMBOCYTOPENIA OF CHRONIC LIVER DISEASES IN THE VETERANS AFFAIRS POPULATION

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OBJECTIVES: To compare the all-cause medical resource utilization in chronic liver disease (CLD) patients with thrombocytopenia (TCP) versus no thrombocytopenia, using the Veterans health administration (VHA) database. **METHODS:** All utilization records of patients in the VA national patient care databases, who had a diagnosis of CLD between 1999 and 2008, were followed from the date of CLD diagnosis to 180 days following the earlier of two events: the last date a platelet count was available for each patient, or the date of the last platelet count of fewer than 50,000 cells / μL. Platelet counts and outcomes such as, number of physician visits (PV) and outpatient procedures (OPP), and healthcare costs (HCC) were determined for every three month period up to study end for each eligible patient, using a longitudinal per patient per 3-month dataset. Generalized linear models (GLMs) were used to study the impact of change in platelet counts on health care utilization and costs, after adjusting for hepatitis C infection and other covariates. **RESULTS:** A total of 935 and 256,516 patient-3-month observations were available for comparing health care use in CLD patients with TCP versus no TCP respectively. After adjusting for liver disease severity and other covariates incidence rate ratios for PV and OPP for an increase in platelet counts by 25,000, were 0.992 (95% CI: 0.990-0.993, $p < 0.0001$) and 0.989 (95% CI: 0.987 – 0.990, $p < 0.0001$) respectively. For a decrease in platelet counts of 10,000 and 25,000 among observations with a maximum platelet count of 50,000 / μL during the study period, the average predicted change in overall health care costs per quarter was +$139 (SD: $379) and +$369 (SD: $1,004), respectively ($p < 0.0001$). **CONCLUSIONS:** In a VA patient population with CLD, TCP is associated with modest increase in health care utilization and costs as compared to no TCP.

PGI15

THE ECONOMIC BURDEN OF UNMET TREATMENT NEEDS IN MEDICAID PATIENTS WITH CHRONIC CONSTIPATION

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OBJECTIVES: Patients with chronic constipation (CC) are often treated with diverse over the counter (OTC) laxatives, bulking agents, stool softeners, and a limited choice of prescription (Rx) drugs. Sub-optimal treatment often results in adverse medical events or treatment modifications. The purpose of this study is to estimate healthcare resource utilization (HRU) and costs of such unmet treatment needs. **METHODS:** Data from the Missouri Medicaid program covering medical services and Rx and OTC medications (1997-2010) were used to select adult patients with CC receiving constipation treatments. The index date was defined as the date of the first constipation-treatment claim. Indicators of unmet treatment needs were observed during the one-year period after the index date and defined as the following events occurring while on constipation treatment: 1) switch to or addition of a new constipation treatment; 2) constipation-related inpatient (IP) or emergency room (ER) admission; 3) megacolon or fecal impaction diagnosis; 4) constipation-related surgery/medical procedure; or 5) use of other unusual constipation treatments. Incremental HRU and costs (USD 2010; measured from a public-payer perspective) were compared between patients with and without indicators of unmet needs using multivariate generalized linear regression models. **RESULTS:** A total of 8745 patients with CC were identified; 54.9% of them were found to have unmet needs during the one-year period following the index date. After adjusting for baseline differences, indicators of unmet needs were associated with more HRU, especially the number of IP days (IRR= 1.54; P<0.001) and ER admissions (IRR=1.35; P<0.001). Indicators of unmet needs were associated with a $2,978 incremental total annual healthcare costs (P<0.001) compared to patients without indicators of unmet needs. The cost difference was mainly driven by IP ($2,575 vs. $1,534; P<0.001) and pharmacy ($7,114 vs. $5,929; P<0.001) costs. **CONCLUSIONS:** Unmet treatment needs among CC patients were associated with a significant economic burden.

PGI16

THE DIRECT ECONOMIC BURDEN OF DIVERTICULITIS RECURRENCE AMONG MANAGED CARE ENROLLEES

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OBJECTIVES: Previous studies demonstrate that diverticulitis (DV) is costly to payers. Most research focuses on total costs and acute episodes, while the burden of recurrent episodes is not well documented. This study assessed the direct economic burden associated with DV recurrence among managed care enrollees. **METHODS:** Data were drawn from insurance claims from ≥40 US health plans. Patients with a primary DV diagnosis (ICD-9-CM 562.11 or 562.13) between January 1, 2005 to December 31, 2008 were subjected to the following criteria: antibiotic treatment ≤3 days post-diagnosis and ≥6 months continuous pre- and ≥12 months post-index date (first observed DV diagnosis) plan enrollment. The first 6 weeks post-index date defined the initial acute episode period. Within a given 6-week period following the acute episode, a recurrent episode was defined by a DV-related hospitalization or ER visit, or a DV-related office visit with antibiotic treatment within ±3 days of the visit. Those with a recurrence were stratified into those with and without surgical intervention. Recurrence-related costs (2009 US$) were evaluated for 12 months post-initial acute episode. **RESULTS:** A totall 36,636 patients were selected (53% male, mean age 52 years); 16.5% (N=6,045) had ≥1 recurrence. Among those with ≥1 recurrence, the mean number (SD) of recurrences was 1.3 (0.6), while the total cost of all recurrences was ~4 times the initial acute episode cost ($12,806 vs. $3,132). For the surgical group (N=2868), the difference between the total cost of all recurrences and initial acute episode cost was still